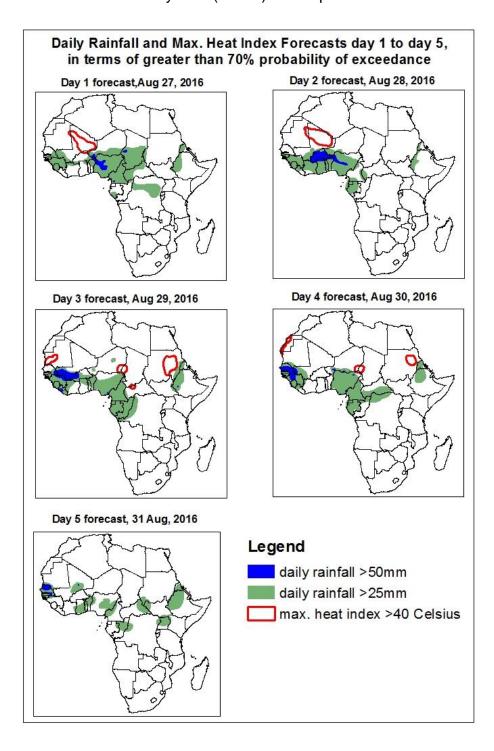
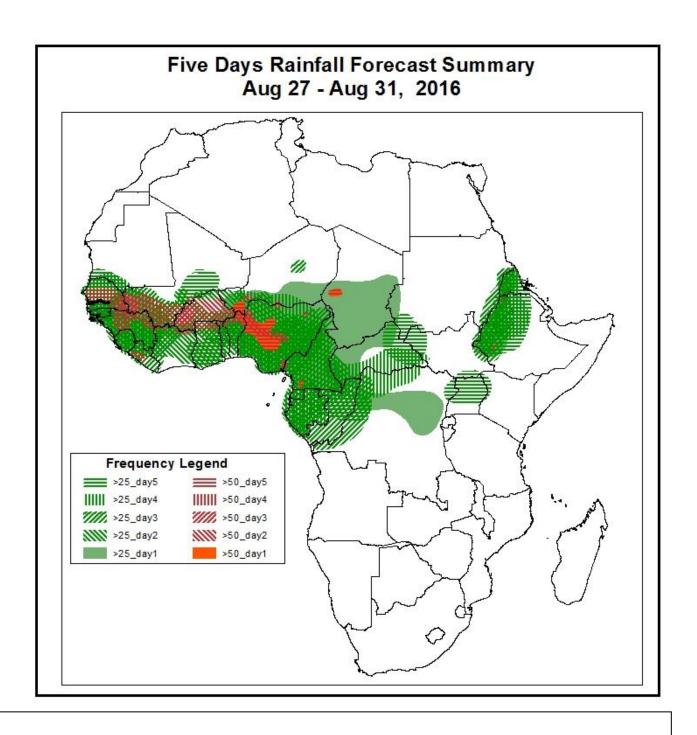
- 1. Rainfall, Heat Index and Dust Concentration Forecasts, (Issued on Aug 26, 2016)
- 1.1. Daily Rainfall and Maximum Heat Index Forecasts (valid: Aug 27– Aug 31 2016)

  The forecasts are expressed in terms of high probability of precipitation (POP) and high probability of maximum heat index, based on the NCEP/GFS, ECMWF and the NCEP Global Ensemble Forecasts System (GEFS) and expert assessment.



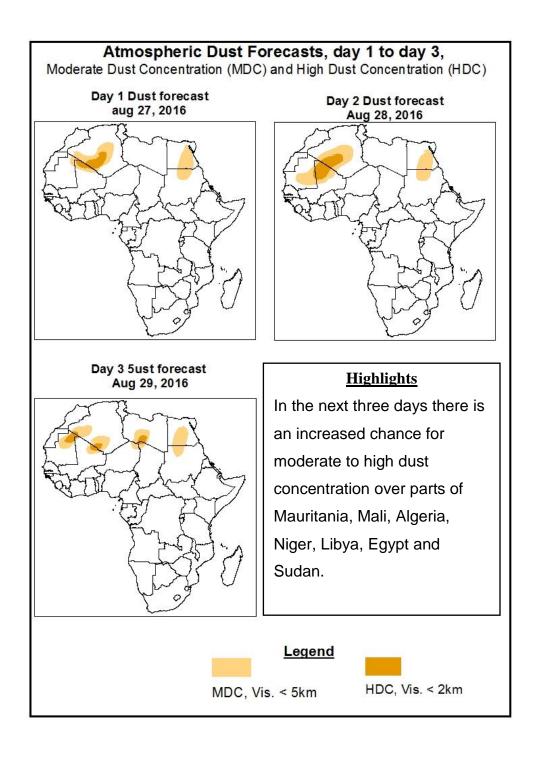


# **Highlights**

In the next five days, westward propagating lower-level cyclonic systems across West Africa and central Sahel and lower level wind convergences across the Greater Horn of Africa are expected to enhance rainfall in their respective regions. Therefore, there is an increased chance for two or more days of moderate to heavy rainfall over portion of Southern Mauritania, much of Senegal, Guinea Bissau, Guinea and Sierra Leone, portions of Liberia, Mali, Burkina Faso, Cote d'Ivoire, Ghana, Togo, Benin Niger and Nigeria, local areas in Chad, portions of Cameroon, CAR, DRC, Congo, Gabon, Ethiopia and Eritrea.

## 1.2. Atmospheric Dust Concentration Forecasts (valid: Aug 27- Aug 29 2016)

The forecasts are expressed in terms of high probability of dust concentration, based on the Navy Aerosol Analysis and Prediction System, NCEP/GFS lower-level wind forecasts and expert assessment.



#### 1.3. Model Discussion, Valid: Aug 27 – Aug 31, 2016

The Azores high pressure system over the North Atlantic is expected to maintain, with a central pressure value ranging from 1024hPa to 1026 hPa during the forecast period.

The high pressure system St. Helena on the southeast of the Atlantic Ocean is expected intensify, with its value of the central pressure increasing from 1027 hPa to 1037 hPa during the forecast period.

The Mascarene High pressure system over the Southeast Atlantic Ocean is expected to intensify, with its value of the central pressure increasing from 1035 hPa to 1039 hPa from 24 hours to 48 hours and tends to weaken, with its value of central pressure decreasing from 1037 hPa to 1034 hPa between 72 hours to 120 hours.

The 1016mb isobar, associated with the East African ridge is expected to remain near the latitudes of northern Ethiopia during the forecast period.

The heat low over Western Sahel is expected to weaken, with its central pressure value decreasing from 1006 hPa to 1003 hPa during the forecast period. The heat low over Central Sahel is expected to weaken, with its central pressure value decreasing from 1011 hPa to 1008 hPa during the forecast period. The heat low over Sudan is expected to weaken, with its central pressure value decreasing from 1008 hPa to 1006 hPa during the forecast period.

At 925hPa, strong dry to northerly easterly winds may lead to moderate to high dust concentration in parts of In the next three days there is an increased chance for moderate to high dust concentration over parts of Mauritania, Mali, Algeria, Niger, Libya, Egypt and Sudan.

At 850hPa level, a cyclonic circulation is expected to propagate westwards in the region between Nigeria and Senegal through the West African Region during the forecast period, while the lower level wind convergence is expected to prevail in the Greater Horn of Africa.

A trough in the easterlies is expected to propagate westwards across the western between southern Nigeria and Northern Mauritania during the forecast period.

At 500 hPa, a zone of strong wind (>35kts), associated with AEJ is expected to expected to propagate westwards across in the region between Border Niger/Nigeria and Senegal.

At 150 hPa A strong wind (> 70 kts), associated with the TEJ is also expected to remain weak over the Greater Horn of Africa during the forecast period.

In the next five days, westward propagating lower-level cyclonic systems across West Africa and central Sahel and lower level wind convergences across the Greater Horn of Africa are expected to enhance rainfall in their respective regions. Therefore, there is an increased chance for two or more days of moderate to heavy rainfall over portion of Southern Mauritania, much of Senegal, Guinea Bissau, Guinea and Sierra Leone, portions of Liberia, Mali, Burkina Faso, Cote d'Ivoire, Ghana, Togo, Benin Niger and Nigeria, local areas in Chad, portions of Cameroon, CAR, DRC, Congo, Gabon, Ethiopia and Eritrea.

There is an increased chance for maximum heat index to exceed 40°C over portions of Mauritania and Mali, local areas in Niger, Nigeria and Chad and portions of Sudan.

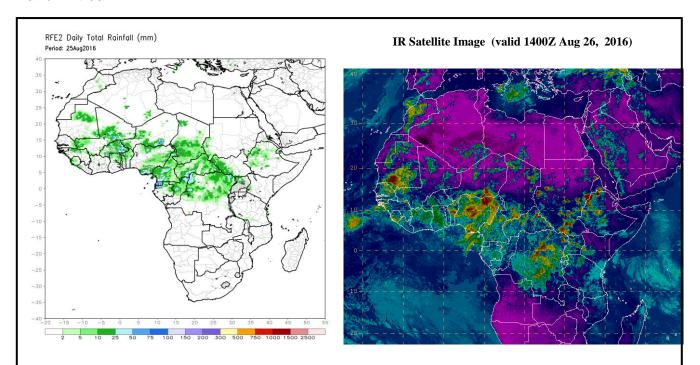
### 2.0. Previous and Current Day Weather over Africa

#### 2.1. Weather assessment for the previous day (Aug 25, 2016)

Moderate to locally heavy rainfall was observed over local areas in Mauritania and Mali, portion of Burkina Faso, local areas in Niger and Nigeria, portion of Great Horn of Africa.

# 2.2. Weather assessment for the current day (Aug 26, 2016)

Intense convective clouds are observed over portions of Mauritania, local areas in Benin, portion of Nigeria, local areas in Cameroon Chad, CAR, DRC, Sudan, Zimbabwe, Ethiopia and Eritrea.



Previous day rainfall condition over Africa (Left) based on the NCEP CPCE/RFE and current day cloud cover (right) based on IR Satellite image.

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